COURSE DETAIL

COMPUTATIONAL SCIENCE: INTRODUCTION TO MODELLING OF CLIMATE SYSTEM

Country
Sweden

Host Institution
Lund University

Program(s)
Lund University

UCEAP Course Level
Upper Division

UCEAP Subject Area(s)
Geography Environmental Studies

UCEAP Course Number
116

UCEAP Course Suffix

UCEAP Official Title
COMPUTATIONAL SCIENCE: INTRODUCTION TO MODELLING OF CLIMATE SYSTEM

UCEAP Transcript Title
INTR MODE CLIM SYST

UCEAP Quarter Units
6.00

UCEAP Semester Units
4.00

Course Description

The course gives in-depth knowledge about climate systems and how climate models are constructed. In the first half of the course different components of contemporary climate models (ocean/land/atmosphere) and interactions between them are introduced and discussed. This includes handling of typical data formats associated with climate models and the analysis of model output with varying resolution and/or complexity. The second half of the course focuses on applications in paleoclimate reconstructions and impact models and the use of ensembles to assess model uncertainties. This includes projects where students independently and in groups solve tasks using programming. Exercise in the use of simplified climate models and analysis tools as well as information retrieval and oral and written presentation techniques are included as a part of certain learning activities.

Language(s) of Instruction
English

Host Institution Course Number
BERN03

Host Institution Course Title
COMPUTATIONAL SCIENCE: INTRODUCTION TO MODELLING OF CLIMATE SYSTEM

Host Institution Course Details
https://www.lunduniversity.lu.se/lubas/i-uoh-lu-BERN03

Host Institution Campus
Lund

Host Institution Faculty
Science

Host Institution Degree
Host Institution Department
Course Last Reviewed 2025-2026

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